



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,990	12/09/2003	Wade M. Mattar	12780-026001	2769
26171	7590	05/13/2005	EXAMINER	
FISH & RICHARDSON P.C. P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			RAEVIS, ROBERT R	
			ART UNIT	PAPER NUMBER

2856

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/729,990

Applicant(s)

MATTAR, WADE M.

Examiner

Robert R. Raevis

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 3-14 and 18-26 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-38 is/are allowed.
- 6) ☒ Claim(s) 1,2,15-17 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

Claims 1,2,15,16,17,27 are rejected under 35 U.S.C. 102(e/b) as being anticipated by Sharp.

Sharp teaches a method to calibrate a Coriolis flowmeter, including: determining a plurality of calibration coefficients (either step 1101 or 1102), the values thereof corresponding to measurements of a material in a flow tube; necessarily associating the values with an operational parameter (likely, zero flow), and storing the values to subsequently determine function 1103.

The coefficients of 1101 are all determined before determination of coefficients of 1102 (as evidenced by "Once the" (col. 15, line 33), suggestive of storing. In the alternative, the "coefficients of inverse function" (1102) are determined before determination of the function (1103), as evidenced by "are determined" (col. 15, lines 34-35) and "is then" (col. 15, lines 36-37), suggestive of storing of the coefficients of inverse.

Claims 1,15,16,17,27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martina et al.

Martina et al teach (Figure 7) a method to calibrate a Coriolis flow meter, including (Figure 7): determining a calibration value "K" (3<sup>rd</sup> box from bottom), the value corresponding to a flow rate in a Coriolis flow meter; storing the calculated K value for subsequent use (inherent, as that stored K value is used to determine F1), the value

being associated with the flow rate; and then repeating the calibration with a "new" flow rate by using the calculated K value to calculate a flow (F1), and to subsequently determine a "new" K value for that "new" flow.

Martina does not state how many "NEW FLOW" (2<sup>nd</sup> box from bottom) rates are used in Figure 7.

As to claims 1,15,16, it would have been obvious to "REPEAT" the loop at least twice (so that three different flows, and three values of "K" are determined) to assure that the final "K" (Last box) value is a valid representation for the meter. By use of three different flows, at least two "K" values are stored in determination of the final "K" value.

As to claim 17, use of a zero value for calibration is known to provide an end point in calibration.

As to claim 28, note was made of "based on a plurality of *previously-determine zero-flow calibration values*" (italics added) with remaining claim limitations.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 2856

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert R. Raevis whose telephone number is 571-272-2204. The examiner can normally be reached on Monday to Friday from 5:30am to 3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Raevis*

RAEVIS